of the Air Quality Act of 1967, the role of the federal government became more dominant. Id. The approach of the 1967 Act, which was continued with the passage of the Clean Air Act of 1970, was to require the states to develop, implement, and enforce the stationary source air pollution control measures. Id. at 694. The role of local governments diminished because states, not local governments, were given responsibility for implementing and enforcing the laws under the federal statutes and regulations, and state air quality standards preempted local laws where conflicts developed. Id. However, strictly local air pollution problems such as odors, open burning, and location of industrial sources continued (and still continue) to be regulated by local ordinances and zoning regulations as well as state laws and regulations. Id. The CAA recognizes these facts in the findings at CAA § 101, in which Congress summarizes the purpose and intent of the Act:

(a) Findings

The Congress finds—

> (1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;
> (2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;
> (3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and
> (4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State,

> regional, and local programs to prevent and control air pollution.

42 U.S.C.A. § 7401. (Emphasis supplied.)

The issue of whether the states or the Environmental Protection Agency (EPA) had primary responsibility for implementing air pollution prevention measures and regulating air pollution control at its source was one of the first issues the United States Supreme Court addressed under the 1970 CAA amendments. Train v. Natural Resources Defense Council, Inc., 421 U.S. 60, 95 S. Ct. 1470 (1975). Train discusses the division of responsibilities between the EPA and states with respect to state implementation plans (SIPs) under CAA § 110, 42 U.S.C.A. § 7410. Train holds that CAA § 110 plainly charges the EPA with the responsibility for setting the national ambient air quality standards, but, just as plainly, EPA is relegated to a secondary role in the process of determining and enforcing the specific, source-by-source emission limitations that are necessary if the national standards EPA has set are to be met. Id. at 421 U.S. at 86-87. The CAA gives the EPA no authority to question the wisdom of a state's choices of emission limitations if they are part of a plan that satisfies the primary and secondary standards set under CAA § 109 and § 110, and the EPA may devise and promulgate a specific plan of its own only if a state fails to submit a SIP under § 110 that satisfies those standards. Id. at 87-90. As long as the ultimate effect of a state's choice of emission limitations complies with the national standards for ambient air set by EPA, the state is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation. Id. at 87-89. The same review criteria apply to SIP revisions. Id. at 90.

Commonwealth of Virginia v. EPA, 108 F.3d 1397 (D.C. Cir. 1997), reaffirmed the principle declared in Train, supra, that CAA § 110 does not confer upon EPA the authority to condition approval of a state implementation plan on the state's adoption of specific control measures; it held the Train principle still pertains under the amendments to the Clean Air Act in 1977 and 1990, except that the EPA has authority to condition approval of a state implementation plan on a state's adoption of control measures recommended by an ozone transport commission pursuant to specific language of § 184, 42 U.S.C.A. § 7511, which is a provision added by the 1990 amendments to deal with interstate ozone air pollution.

Alabama Power Company v. Costle, 636 F.2d 323, 361-64 (D.C. Cir., dec. 1979, amend. 1980) raises in the PSD context of the CAA essentially the same issue addressed in Train, supra, 421 U.S. at 84-90, in the context of the National Ambient Air Quality Standards (NAAQs) – that is, the division of authority between the EPA and the states regarding setting, managing, and enforcing the PSD increments. Alabama Power draws the line between federal and state authority over the PSD increments at essentially the same place the line was drawn in Train and by Congress at CAA § 101(a)(3) [42 U.S.C.A. § 7401(a)(3) quoted above]: "We rule that EPA has authority under the statute to prevent or to correct a violation of the increments, but the agency is without authority to dictate to the States their policy for management of the consumption of allowable increments." Alabama Power, 636 F.2d at 361.

> EPA has evidenced an intention to promulgate guidelines to help the states manage the allocation of available increments. This is an appropriate step. But this is not to say that the agency may prescribe the manner in which states will manage their allowed internal growth. In the allocation of responsibilities made by Congress, maximum limitations have been set. These must be observed by the states, but assuming such

compliance, growth-management decisions were left by Congress for resolution by the states.

Id. at 364.

Similar to the role assigned to the EPA in enforcing the NAAQs under the Train principle, Alabama Power recognizes that the PSD program charges the EPA with responsibility for setting rules and guidelines to govern the PSD standards set by Congress, Id. at 364, and the authority to prevent and correct a violation, Id. at 361, but determines that the EPA has a secondary role in the process of determining and enforcing the specific, source-by-source increment management decisions that are necessary if the PSD increments set by Congress are to be met. Id. at 361, 364. As long as the ultimate effect of a state's choice of emission limitations on its regulated stationary sources complies with the PSD increments for affected areas, the state may adopt whatever mix of PSD emission limitations it deems best to manage the allowable increments. Id. at 361, 364.

CAA § 101(a)(3), which reserves to states and local governments their traditional primary responsibility for air pollution prevention and air pollution control, is consistent with the cases that recognize that states under their traditional police powers have primary responsibility for protecting public health, safety, and welfare. *See, e.g.,* General Motors Corp. v. Tracy, 519 U.S. 278, 306-07 (1997) ("We have consistently recognized the legitimate state pursuit of such [health and safety] interests as compatible with the Commerce Clause, which was 'never intended to cut the States off from legislating on all subjects relating to the health, life, and safety of their citizens, though the legislation might indirectly affect the commerce of the country.'"), quoting Huron Portland Cement Co. v. Detroit, 362 U.S. 440, 443-44 (1960) (upholding local air

pollution control regulation). There is a presumption against the preemption of traditional state and local police powers by Congress that requires a "clear and manifest" showing of congressional intent to supplant those powers. *See, e.g.,* AT & T Corp. v. Iowa Utilities Bd., 119 S.Ct. 721, 749-50 (1999), *citing* Cippollone v. Liggett Group, Inc., 505 U.S. 504, 518 (1992) ("presumption against the preemption of state police power regulations"); Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947) (requiring "clear and manifest" showing of congressional intent to supplant traditional state police powers). CAA § 101(a)(3) manifests Congress's intent under the CAA to not take over or preempt the primary responsibility for air pollution prevention and air pollution control at its source that states and local governments historically have exercised under their traditional police powers.

Alabama Power raises the issue of the division of authority between EPA and the states regarding management and enforcement of the PSD increments in the context of determining whether PSD review to determine compliance with the PSD increments applies only in the preconstruction review process under CAA §165 [42 U.S.C.A. § 7475], or whether "enforcement measures were contemplated beyond preconstruction review." Alabama Power at 362-63. Prior to the 1977 CAA amendments, compliance with the PSD requirements was determined only through preconstruction review. Id.

The regulations implementing the 1977 amendments provided, however, that once it is determined (1) that a state implementation plan is "substantially inadequate" to prevent significant deterioration or (2) "that an applicable increment is being violated," then the SIP must "be revised to correct the inadequacy or the violation." Id. at 361, citing 40 CFR § 51.24(a)(3)(1978) since re-codified at 40 CFR § 51.166(a)(3)(1999).

The issue with regard to 40 CFR § 51.24(a)(3) was whether compliance with the PSD increment was to be determined only through preconstruction review. Construing the language of CAA §§ 161, 163(a), and 165 [42 U.S.C.A. §§ 7471, 7473(a), and 7475] together in the context of their legislative history, the court determined:

> Nothing in the plain language of the statute limits the measures in the state implementation plan to the preconstruction permit process. The legislative history reflects an understanding that other measures might be required and are within the authority conveyed by the Act.

Alabama Power, 636 F.2d at 362. This ruling by the court essentially follows EPA's reasoning and analysis at the time of publishing the PSD rules after the 1977 amendments to the CAA. *See* 43 FR 26380 (June 19, 1978).

The court went on to hold, however, that the challenged regulation, 40 CFR § 51.24(a)(3), is "interpretive in nature" and that many of the issues raised by industry and the EPA were not ripe for review. Id. at 363.

> [40 CFR § 51.24(a)(3)] simply states the proposition that SIPs must make provision to ensure that violations of the increments of maximum allowable concentrations do not occur, and, if they have occurred, to ensure that steps will be taken to correct the violation. EPA has furnished no guidelines to the states in this regard; there is no requirement that specified corrective measures be employed. Industry evidences a concern that when EPA does promulgate guidelines or require specific measures, certain operating facilities will be unfairly disadvantaged. Obviously, such considerations are not ripe for review at this time.

Id. (Emphasis supplied.)

The Alabama Power decision does not address issues of increment consumption or the establishment of the "baseline concentration" that is necessary before increment consumption calculations can be made. This is recognized in the rules and regulations the EPA issued in response to the Alabama Power decision at 45 FR 52675, 52717 (August 7, 1980):

> There are two basic issues in the area of increment consumption: (1) which source emissions consume increment and (2) how to calculate the amount of increment consumed by those emissions. The Alabama Power decision addressed neither question.

These "two basic issues" are the issues addressed in this memorandum. With the exception of the issues relating to the legal effects of the CAA § 165(d)(2)(C)(iii) Class I variances, the list of issues at the end of section 2 of this memorandum all merely expand and identify specific issues that arise out of the two basic issues in the area of increment consumption identified by the EPA at 45 FR 52675, 52717. There are no court decisions, federal or state, that address these two basic issues. The Department must therefore address these issues by applying the rules of construction and interpretation discussed above to the relevant statutes, rules, and regulations.

In summary, the CAA recognizes in its introductory language that air pollution prevention and air pollution control at its source is the primary responsibility of states and local governments. The Train principle affirms the central role of the states in air pollution control and management of sources. Train recognizes that the EPA has primary responsibility for setting national standards, but the states have the primary role in the process of determining and enforcing the specific, source-by-source emission limitations that are necessary to meet the standards that the EPA sets. In the division of authority over the PSD program, Alabama Power draws the line between federal and state authority over the PSD increments at essentially the same place the line was drawn in Train and by Congress. The EPA may promulgate rules and guidelines to help the states manage the allocation of available increments and has authority under the CAA to prevent or to correct a violation of the increments when the states fail to do so. But the EPA may not prescribe the manner in which states will manage their allowed

internal growth. States must observe the maximum increment limitations that have been set by Congress, but assuming such compliance, Congress has left PSD growth-management decisions for resolution by the states. The EPA lacks authority to dictate to states their policy for management of the consumption of allowable increments.

The Alabama Power decision does not address issues of increment consumption. The rules and regulations that EPA has promulgated to help states manage the allocation of available increments leave states with considerable discretion in determining and managing baseline concentration and increment consumption. The Department must correct any violation of the increments and comply with the relevant federal statutes and regulations, but the Department has considerable discretion to manage the consumption of allowable increments on a source by source basis.

c. Summary of the PSD program under the Clean Air Act

The previous subsection briefly summarized the background of the CAA relating to the role states and local governments are assigned under the Act itself (42 U.S.C.A. § 7401(a)(3)), the leading case addressing that role under the Act (Train, 421 U.S. at 86-90), and the leading case addressing that role under the 1977 amendments to the CAA dealing with New Source Review (NSR) and PSD (Alabama Power, 636 F.2d at 361-64). This subsection will summarize and examine the PSD program under the CAA, beginning with a general summary of the Act, its history, and its implementing rules and regulations, then moving to a discussion of the federal statutory and regulatory requirements Congress and the EPA have enacted to assist the states in making increment management decisions regarding PSD baseline concentration and increment consumption. The purpose of this summary is to examine the legislative

intent of the CAA with regard to how states are to establish and manage "baseline concentration" and "increment consumption" under the Act to comply with the "cardinal rule" of statutory construction discussed above – to interpret the relevant statutes and regulations consistent with legislative intent and in a manner that will accomplish their policy goals and objectives. Holum, 544 N.W.2d at 152-53. To determine legislative intent of a specific provision, it is necessary to consider the entire enactment of which it is a part and, to the extent possible, interpret the provision consistent with the intent and purpose of the entire Act. Lund, 389 N.W.2d at 586-87.

1. Summary of the CAA and North Dakota's Laws and Development of the PSD Program

A. Relevant Statutes, Rules, and Regulations

The CAA consists of several hundred separate statutory provisions passed over a thirty-six year period, beginning with passage of the original Act in 1963 to the most recent amendments in 1999. CAA §§ 101-618 (42 U.S.C.A. §§ 7401-7671q). The federal statutory provisions governing the PSD portion of the CAA are CAA §§ 160-169 (42 U.S.C. §§ 7470-7479), a part of the CAA Amendments of 1977. The federal rules governing PSD (from which the North Dakota PSD rules are derived) have been identified and discussed above. 40 CFR § 52.21 and 40 CFR § 51.166. Key comments in the federal register accompanying the implementation of these rules are: 43 FR 26380 (June 19, 1978) (comments discussing requirements for preparation, adoption, and submittal of SIPs after '77 CAA amendments published with final adoption of the rules, i.e., rules now codified at 40 CFR § 51.166); 43 FR 26388 (June 19, 1978) (comments relating to amendments to EPA's rules relating to PSD published with final adoption of the rules, i.e., 40 CFR § 52.21); 45 FR 52675 (August 7, 1980) (comments

relating to amendments of federal PSD rules – 40 CFR § 51.166 and 40 CFR § 52.21 – after Alabama Power decision); and 57 FR 32314 (July 21, 1992) (comments accompanying changes to federal PSD rules adopting "an actual to future actual" methodology for calculating PSD effects of changes at existing utilities that are non-routine physical or operational changes that don't fit into the definition of "routine maintenance"; these changes were made in response to Wisconsin Electric Power Co. v. Reilly (WEPCO), 893 F.2d 901 (7th Cir. 1989).

The state law establishing North Dakota's air pollution control law and giving the state authority to assume delegation of CAA programs from the EPA is N.D.C.C. ch. 23-25. The North Dakota rules governing PSD are at N.D. Admin. Code ch. 33-15-15. North Dakota has adopted the WEPCO amendments to the PSD rules. *See* N.D. Admin. Code § 33-15-15-01(1)(a)(4), which adopts the "actual to future actual" methodology for defining "actual emissions" in determining PSD increment consumption for changes to existing utilities that are non-routine physical or operational changes that don't fit into the definition of "routine maintenance", and N.D. Admin. Code § 33-15-15-01(1)(ee), which defines "representative actual annual emissions" as used in N.D. Admin. Code § 33-15-15-01(1)(a)(4). North Dakota's SIP is published in the Federal Register at 40 CFR §§ 52.1820-52.1835.

The regulations at 40 CFR § 51.166 establish the requirements that states must include in their SIPs if they wish to take primacy over and assume responsibility for the PSD program under the CAA in their state. See 40 CFR § 51.166(a)(1); 45 FR at 26380; 57 FR at 32316, FN7; Craig N. Oren, *Prevention of Significant Deterioration: Control-Compelling Versus Site-Shifting*, 74 Iowa L. Rev. 1, 12 FN 56 (1988). The

regulations at 40 CFR § 52.21 apply to states that have not taken primacy over the PSD program, or whose PSD plan has been disapproved, or when it has been incorporated by reference into a SIP. 40 CFR § 52.21(a); Oren, 74 Iowa L. Rev. at 12, FN 56. The regulations at 40 CFR § 52.21 also apply to federal lands and Indian Reservations within a state when incorporated into a SIP for that purpose. 40 CFR § 52.21(a).

In North Dakota, 40 CFR § 52.21(b) through 40 CFR § 52.21(v) have been incorporated into North Dakota's SIP by reference for application to proposed major stationary sources or major modifications located on Indian Reservations. 40 CFR § 52.1829. On all other lands in North Dakota, North Dakota's statutes, rules, and regulations, as adopted and incorporated into its federally enforceable SIP, are the governing rules and regulations that must be applied in this state on air pollution control issues. See 40 CFR § 52.1820; Public Service Co. of Colorado v. U.S. E.P.A., 225 F.3d 1144, 1145 (10th Cir. 2000). North Dakota's SIP, 40 CFR §§ 52.1820-52.1835, has incorporated by reference the rules, documents, and revisions which govern North Dakota's PSD program, as well as other air pollution control issues. North Dakota's SIP does not incorporate 40 CFR § 52.21 by reference for application to either PSD Class I areas or any other federal lands, so the governing rules and regulations for those areas are the North Dakota PSD rules and regulations as incorporated into North Dakota's SIP.

With few exceptions, North Dakota's PSD rules are contained at N.D. Admin. Code ch. 33-15-15. Although these rules are arranged and numbered differently than the federal rules, for the most part the wording of the North Dakota PSD rules is either identical or nearly identical to the federal rules. The fact that they are state rather than

federal rules is significant and relevant for two reasons. First, the rules of state statutory and legal construction apply, although the federal statutes, rules, regulations, and interpretations from which the state rules are derived are relevant in construing their meaning; although the Department is not compelled to follow the EPA's interpretations, they are "highly persuasive". *See* section 3a of this memorandum above. Second, the interpretation and application given to the PSD rules by the Department, as the agency responsible for implementing and enforcing those rules in North Dakota, is relevant to their interpretation and is entitled to appropriate deference under both state and federal law. *See* section 3a of this memorandum above.

B. Summary of the Development of the PSD Provisions of the CAA and North Dakota's Air Pollution Laws

The meaning and use of various terms in the CAA in general, and the PSD program in particular, are potentially very confusing without understanding how each program and definition fits into the Act as a whole. To determine the meaning and intent of various provisions of the PSD program, a summary of the development of the CAA and of how the PSD program fits into the Act as a whole is necessary.

As discussed in section 3b, regulation of air pollution grew out of increasing problems with air pollution resulting from the Industrial Revolution and the growth of cities. As industry and power needs increased dramatically during World War II and afterwards, an extended period of peace and economic prosperity allowed the shifting of economic and social resources towards addressing the growing air pollution problems that were concomitant with the growing industry, growing economy, and growing population. *See*, e.g., 1 Frank P. Grad, Treatise on Environmental Law § 203[1] (1996). Congress stepped in for the first time into what had traditionally been a local and state

issue for the two reasons stated in the law itself: (1) air pollution problems crossed local and state boundary lines, and (2) "the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles" resulted in "mounting dangers to the public health and welfare." CAA § 101(a) [42 U.S.C.A. § 7401(a)].

Congress's initial foray into air pollution issues began with the passage of the Air Pollution Control Act of 1955. Pub. L. No. 84-159, 69 Stat. 322 (1955). This law authorized federal "research and technical assistance relating to air pollution control" from the Department of Health, Education and Welfare. Id. ch. 360. Along with this investment of federal resources into research and technical assistance, Congress declared its intent that responsibility for air pollution control would remain primarily with the states. See S. Rep. No. 84-389, at 3 (1955), reprinted in 1995 U.S.C.A.A.N. 2457, 2459 (stating that the bill represents no "exercise of police power" nor any attempt to "invad[e] the sovereignty of states"). Such a declaration has accompanied all federal air pollution legislation passed since 1955, even as the federal government's regulatory role has grown. *See* 42 U.S.C.A. § 7401(a)(3); William H. Rodgers, Jr., Environmental Law § 3.1, at 130 (2d ed. 1994). The federal-state partnership to address air pollution initiated under the Air Pollution Control Act of 1955 remains the backbone of the system of (1) federally set minimum air quality standards, federal oversight, and technical and financial assistance, and (2) state implementation, management, and enforcement of the programs that have developed out of this partnership under the CAA. *See*, e.g., section 3b above, and Alabama Power, 636 F.2d at 346 ("At the heart of the [CAA

amendments of 1970] were federally promulgated national ambient air quality standards (NAAQS) and state-adopted plans to implement those standards.").

Authority for the federal government to directly bring enforcement actions to address air pollution problems began in 1963 with passage of the first Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (1963). The law authorized the Secretary of Health, Education and Welfare (HEW) to intervene, albeit only through investigation and advisory recommendation, when air pollution endangered the public "health or welfare." § 5, 77 Stat. at 396-98. The HEW Secretary could recommend federal enforcement action by the Attorney General, for example, to compel a state with air quality standards to meet those standards when adverse effects of pollution were extreme or were crossing state boundaries. § 5(f)(7), 77 Stat. at 397-98. Because of the procedural hurdles that were prerequisite to direct federal action, including consultation with the state affected, only one case progressed from the enforcement stage (a filed consent decree in federal court) to an abatement suit in federal court. *See* § 5, 77 Stat. at 396-98; Grad, supra, § 2.03 at 2-72. United States v. Bishop Processing Co., 287 F. Supp. 624, 629 (D. Md. 1968) aff'd, 423 F.2d 469 (4th Cir. 1970), cert. denied, 398 U.S. 904 (1970), upheld the constitutionality of federal air pollution control when it involved issues of interstate pollution (holding movement of air pollutants across state line constitutes "interstate commerce" subject to the power granted to Congress by the Constitution to regulate such commerce).

The Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485 (1967), gave HEW authority to designate air quality control regions and required states to adopt ambient air quality standards for the various regions and develop implementation plans to achieve

these standards. §§ 107-108, 81 Stat. at 491-93. The framework of the 1967 Act – establishing ambient air standards as the goal, state implementation plans as the means, and air quality control regions as the fundamental geographic unit by which success is measured – became the "vessel into which the subsequent amendments were poured." Rodgers, supra, § 3.1 at 134. Under the '67 Act, the federal government controlled pollution through air quality criteria that functioned as performance standards for the states, rather than seeking to regulate sources directly, with states setting source-specific emissions limits provided they enacted an implementing law. Id. at 124-35.

The 1969 North Dakota Legislature enacted the original version of N.D.C.C. ch. 23-25 directly in response to the provision of the Air Quality Act of 1967 that provided for federal enforcement if the procedure to establish and enforce air quality standards was not followed by the state. Thomas L. Zimney, *The peril of Air Pollution in North Dakota*, 46 N.D. L. Rev. 217, 220 (1970), citing §108(c)(2), 81 Stat. at 492-93. One of the primary purposes of the bill, as expressed by one sponsor, Senator Trenbeath, was the avoidance of federal enforcement by implementing a state program. Id. at 217. Testimony presented by W. Van Heuvelen, the Executive Officer for the Department at that time, to the Natural Resources Committees of the Senate and House, confirms this:

> We know you are aware of the recently enacted Federal air pollution legislation – The Air Quality Act of 1967. This Act requires standard-setting and enforcement by states and permits strong federal action if the states do not act. The passage of a North Dakota air pollution control law would alleviate the necessity of Federal intervention in North Dakota's local air pollution problems.

Written testimony, W. Van Heuvelen, presented to N.D. Sen. Comm. on Nat. Res., Sen. Grant Trenbeath, Chair, Senate Bill No. 130 (Jan. 17, 1969). Thus, the underlying

legislative intent of N.D.C.C. ch. 23-25 included the intent for the state to have primary responsibility for setting and enforcing its own air quality standards, rather than to be subject to federal intervention and control. North Dakota's statute and implementing rules must be read in this context.

The CAA amendments of 1970 established the current structure of the CAA. Congress carried over from the '67 Act the concept of air quality control regions as the basic regulatory unit and directed the newly formed EPA (created in 1970 by executive order after executive reorganization shifting environmental responsibilities from HEW) to: (1) identify a list of "criteria" pollutants which endanger public health and welfare; and (2) prescribe primary (health-based) and secondary (welfare-based) National Ambient Air Quality Standards (NAAQS) for each criteria pollutant. Pub. L. No. 91-604, 84 Stat. 1676, at CAA §§ 107-09, 1678-80 (1970). Primary standards must protect the "public health" with an adequate margin of safety. CAA §109(b)(1), 42 U.S.C.A. § 7409(b)(1). Secondary standards must protect "public welfare," which is defined to include both known or anticipated adverse effects. CAA § 109(b)(2), 42 U.S.C.A. § 7409(b)(1); CAA § 302(h), 42 U.S.C.A. § 7602(h).

The pollutants for which these primary and secondary standards have been established are commonly known as "criteria" pollutants because, under CAA § 109(b), EPA must base the establishment of ambient standards on 'criteria' documents setting forth scientific knowledge about health and welfare effects. Under these "criteria," EPA identified and established six initial "criteria" pollutants: carbon monoxide, lead, nitrogen oxides, ozone, sulfur dioxide, and particulate matter. See, e.g., Lead Indus. Ass'n v. EPA, 647 F.2d 1130, 1148-51 (D.C. Cir. 1980), cert. denied, 449 U.S. 1042(1980)

(primary standards). Because of the difficulty of establishing the scientific threshold at which health effects begin to occur, and litigation concerning whether "implementation costs" should be considered in establishing the NAAQS, the list of criteria pollutants has remained unchanged from its initial establishment by EPA. However, the Supreme Court recently determined that the EPA may not consider "implementation costs" in setting the primary and secondary NAAQS, resolving one of the two longstanding issues for establishing additional primary and secondary NAAQS. Whitman v. American Trucking Associations, Inc., 121 S. Ct. 903, 909-11 (2001).

Once the EPA had established primary NAAQS for the six "criteria" pollutants, states were in a position to measure whether the designated air quality regions in their states were in "attainment" or "nonattainment" based on whether they met the NAAQS. CAA § 110(k)(3), 42 U.S.C.A. § 7410(k)(3). The 1970 Act then required each state to submit for EPA approval a "state implementation plan" (SIP) which detailed how emissions would be limited within that state so that each state could either attain or maintain the federal NAAQS. CAA § 111, 42 U.S.C.A. § 7411. In "nonattainment areas", the SIP must consist of measures, such as emission limitations on individual sources of pollution, sufficient to demonstrate that the state will attain or the primary standards by the statutory deadlines, and the secondary standards within a reasonable time. Id. In "attainment areas", such as North Dakota, the SIP only had to show how the state would "maintain" the NAAQS. Id. North Dakota's approved SIP is at 40 CFR §§ 52.1820-52.1835.

As discussed above relating to the Train principle, under its SIP the state is substantially free to allocate the reduction or maintenance burden among sources

however it wishes, so long as it can show that the SIP will result in timely attainment and maintenance. Train, 421 U.S. at 79 ("[S]o long as the ultimate effect of a State's choice of emission limitations is compliance with the national standards for ambient air, the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation."). There are some exceptions. *See* CAA § 111, 42 U.S.C.A. § 7411 and CAA § 173, 42 U.S.C.A. § 7503 (minimum standards for new sources); CAA § 209, 42 U.S.C.A. § 7543 (states generally preempted from regulating new motor vehicles more strictly than federal standards); CAA § 123, 42 U.S.C.A. § 7423 (states generally forbidden to rely on intermittent controls or tall stacks as means of attainment). In addition, EPA has ruled that states must require "reasonably available control technology" for hydrocarbon control in areas that violate the ozone standard. 44 FR 20372, 20378 (Apr. 4, 1979).

At the time the NAAQS were established, the air quality in North Dakota was substantially better than the NAAQS. *See* Air pollution Control Grant: Final Report for the Twelve Months Ending 9/30/77, by Department's Division of Environmental Engineering (March 1978). That has remained the case. *See, e.g.,* Annual Report: North Dakota Air Quality Monitoring Data Summary for 1999, by Department's Division of Environmental Engineering (September 2000). North Dakota has maintained NAAQS "attainment" status in both of its air quality control regions throughout the program's history, and, from its inception, its SIP has only had to address the issue of maintaining that status in terms of meeting the NAAQS. However, the '70 Act prescribed standards of performance for new stationary sources, regardless of location and regardless of attainment or nonattainment status of the air quality region for which it was proposed.

These standards are known as new source performance standards (NSPS). *See* CAA § 111, 42 U.S.C.A. § 7411. Thus, initially, one of the primary responsibilities of the Department, then called the North Dakota *State* Department of Health, under the CAA was issuance of the NSPS permits. *See* North Dakota Air Pollution Control Regulations, § 1.090 et seq. (2d revision effective Dec. 15, 1973). The initial permits issued by the Department to coal fired electric generation facilities built between 1970 and 1975 were these NSPS permits issued under North Dakota's initial SIP.

The determinations of whether each air quality control region had "attainment" or "nonattainment" status after the NAAQS were established immediately created a huge legal and policy issue. Nonattainment regions had to develop a plan under their SIPs for bringing their regions into attainment according to specific deadlines. CAA § 110(a)(2), 42 U.S.C.A. 7410(a)(2), and Part D, CAA §§ 171- 177, 42 U.S.C.A. 7501-7509, prescribe the deadlines and the other requirements for SIPs and EPA's options for nonattainment areas that do not submit SIPs within those deadlines that satisfied the requirements of the law. In "nonattainment areas" or regions, the SIP had to include measures, such as emission limitations on individual sources of pollution, sufficient to demonstrate that the state will attain or the primary standards by the statutory deadlines, and the secondary standards within a reasonable time. CAA § 111, 42 U.S.C.A. § 7411.

Attainment regions, on the other hand, were free to allow unlimited growth in air pollution up to the limits allowed under the NAAQS. This created a possibility, perhaps even a likelihood, that large stationary industrial sources located in nonattainment regions (and states) would move to attainment regions (and states), rather than install

the expensive pollution control equipment that they wouldn't need to install if they moved to an attainment area (or state). Movement of the source would likely involve movement of jobs and people. Clean air, low population states like North Dakota, which were substantially below the NAAQS for all six criteria pollutants, stood to gain both economically and in population growth from this situation. Further, this situation created a potential "race to the bottom" competition between states, in which states would set the lenient standards to attract industries moving from "nonattainment" regions rather than install the pollution control equipment necessary to meet the NAAQS. The situation in North Dakota was described at that time as follows:

> The growth of industry and the tremendous potential for industrialization of North Dakota presents a potentially major problem unless satisfactory laws are established. North Dakota has been termed as the "'Texas of the North.' ... Some day the *smokestacks* of a hundred plants will march across the horizon of North Dakota as the *oil rigs* have begun to do, and as the elevators have done for almost a century."
>
> Mr. Bruce Bartch, director of the North Dakota Business and Industrial Development Program, declared that "... North Dakota leads the nation [in increased industrial development] with a 50 per cent increase in the last three years."
>
> The potentially enormous growth of the utility or power industries in North Dakota is another factor to be considered. There is at present speculation into the feasibility of building load centers in the lignite fields of North Dakota which would produce two million kilowatts. Senator Quentin N. Burdick (D. N.D.) said that the cost study to link North Dakota power with Minnesota metropolitan needs could create the greatest industrial development in the history of North Dakota. Senator Burdick stated: "When the first giant lignite generating unit was dedicated in 1964, I said there would be 20 more like it. Today three of those plants are now realities. A fourth is well on its way."

Zimney, supra, 46 N.D. L. Rev. at 222-23. (Footnotes omitted, emphasis in original.)

To prevent a flight of industry from nonattainment regions and the potential "race to the bottom" between states described above, Congress began to consider legislation

to correct this problem and a lawsuit was filed by the Sierra Club to prevent what environmentalists were calling the "graying of America." *See* Nondegradation Policy of the Clean Air Act: Hearing Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 93d Cong., 1st Sess. 7 (1973) (statement of Laurence I. Moss, President of the Sierra Club). This eventually led to the PSD legislation that became a part of the 1977 amendments to the CAA. CAA §§ 160-169, 42 U.S.C. §§ 7470-7479. The road to this legislation was a circuitous one, however.

The lawsuit, Sierra Club v. Ruckelshaus, 344 F. Supp. 253 (D.D.C. 1972), relied on the following provision of the CAA:

> (b) Declaration
>
> The purposes of this subchapter are—
>
> > (1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;
> > (2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;
> > (3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and
> > (4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

CAA § 101, 42 U.S.C. §§ 7401. (Emphasis supplied.)

Relying on the language of CAA § 101(b)(1) emphasized above, the court overturned EPA's interpretation of the Clean Air Act and held that the Act, by declaring the legislative purpose of "protecting and enhancing" air quality, mandated that the agency require states to ensure that the air quality of "clean air" or attainment areas not suffer significant deterioration. Sierra Club, 344 F. Supp. at 256. This decision was